```
=> File .Biotech
=> s (whey(l)protein#)
L1        27585 (WHEY(L) PROTEIN#)

=> s l1 and(casein#(l)glycomacropeptide or glycomacro peptide or glyco macropeptide
or GMP)
L2          307 L1 AND(CASEIN#(L) GLYCOMACROPEPTIDE OR GLYCOMACRO PEPTIDE OR
                GLYCO MACROPEPTIDE OR GMP)

=> s l2 and (produc? or prepar? or mak?)
L3          271 L2 AND (PRODUC? OR PREPAR? OR MAK?)

=> s l3 and (purif? or remov? fat or delipid?)
L4          138 L3 AND (PURIF? OR REMOV? FAT OR DELIPID?)

=> s l4 and (remov?(l)whey protein or deprotein? whey or DPW)
L5           39 L4 AND (REMOV?(L) WHEY PROTEIN OR DEPROTEIN? WHEY OR DPW)

=> s l5 and (ion exchang? or chromatog? or resin#)
L6           30 L5 AND (ION EXCHANG? OR CHROMATOG? OR RESIN#)

=> s l6 and (microfiltrat? or micro filtrat? or diafiltrat?)
L7           21 L6 AND (MICROFILTRAT? OR MICRO FILTRAT? OR DIAFILTRAT?)

=> s l7 and (remov? lactose or peptide# or minerals)
L8           18 L7 AND (REMOV? LACTOSE OR PEPTIDE# OR MINERALS)

=> s l8 and (concentrat? or dry? or centrifug? or precipitat? or aggregat?)
L9           18 L8 AND (CONCENTRAT? OR DRY? OR CENTRIFUG? OR PRECIPITAT? OR
                AGGREGAT?)

=> s l9 and (bovine whey protein#)
L10           1 L9 AND (BOVINE WHEY PROTEIN#)

=> d l1 bib ab

L1   ANSWER 1 OF 27585     MEDLINE on STN
AN   2004267889     IN-PROCESS
DN   PubMed ID: 15168035
TI   Gastric emptying, gastric secretion and enterogastrone response after
     administration of milk proteins or their peptide hydrolysates in humans.
AU   Calbet Jose A L; Holst Jens J
CS   Copenhagen Muscle Research Center, Rigshospitalet, Copenhagen, Denmark,.
     lopezcalbet@terra.es
SO   European journal of nutrition, (2004 Jun) 43 (3) 127-39.
     Journal code: 100888704. ISSN: 1436-6207.
CY   Germany: Germany, Federal Republic of
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Priority Journals
ED   Entered STN: 20040529
     Last Updated on STN: 20040529
AB   BACKGROUND: The influence of protein fractionation on gastric
     emptying and rate of appearance of their constituent amino acids in
     peripheral blood remains unknown.  AIM OF THE STUDY: To examine the
     influence of the degree of protein fractionation on gastric
     emptying, gastric secretion, amino acid absorption and enterogastrone
     response, after the intragastric administration of complete cow milk
     proteins or their respective peptide hydrolysates in man.
     METHODS: Six healthy males were randomized to receive one of the following
     four solutions: whey whole protein (W), casein whole
     protein (C), whey peptide hydrolysate (WHY) or casein
     hydrolysate (CAHY).  All solutions were matched for volume (600 mL),
     nitrogen content (9.3 g/L), energy density (1069-1092 kJ/L), osmolality
     (288-306 mosmol/kg), pH (6.9-7.0) and temperature (37 degrees C).
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RESULTS: Solutions were emptied at similar rates, with mean half-times of (mean +/- SEM) 21.4 +/- 1.3, 19.3 +/- 2.2, 18.0 +/- 2.5 and 19.4 +/- 2.8 min, for the WHY, CAHY, C and W, respectively. The rates of intestinal absorption of water and amino acids were similar with the exception of the casein **protein** solution, for which the speed of intestinal amino acid absorption was slower ($p < 0.05$). The peptide hydrolysates elicited about 50% more gastric secretion than the whole **protein** solutions ($p < 0.05$),which was accompanied by higher glucosedependent insulinotropic polipeptide (GIP) plasma levels during the first 20 min of the gastric emptying process. Similar glucagon-like peptide-1 (GLP-1) and peptide YY (PYY) plasma responses were elicited by the four solutions. CONCLUSIONS: The rate of gastric emptying and the plasma GLP-1 and PYY responses to feeding with cow milk **protein** solutions in humans are independent of the degree of **protein** fractionation and are not altered by small differences in the amino acid composition or **protein** solubility. In contrast, the GIP response is accentuated when milk **proteins** are delivered as peptide hydrolysates.

```
=> s l9 and (bovine kappa casein glycomacropeptide#)
L11           0 L9 AND (BOVINE KAPPA CASEIN GLYCOMACROPEPTIDE#)

=> s l9 and (bovine kappa casein#)
L12           1 L9 AND (BOVINE KAPPA CASEIN#)

=> d l12 bib ab

L12  ANSWER 1 OF 1  USPATFULL on STN
AN      2002:323318  USPATFULL
TI      Large scale production of low fat and SDS gel pure
        kappa-casein glycomacropeptides (GMP) from bovine
        deproteinzed whey
IN      Davis, Martin E., Tonka Bay, MN, UNITED STATES
        Ming, Fang, Madison Lake, MN, UNITED STATES
        Su, Sharyn X., Plymouth, MN, UNITED STATES
        Yang, Mengyan, Le Sueur, MN, UNITED STATES
        Ichinomiya, Akimoto, Tokushima, JAPAN
PI      US 2002183489       A1   20021205
AI      US 2002-99612       A1   20020314 (10)
PRAI    US 2001-275878P      20010314 (60)
DT      Utility
FS      APPLICATION
LREP    WARE FRESSOLA VAN DER SLUYS &, ADOLPHSON, LLP, BRADFORD GREEN BUILDING
        5, 755 MAIN STREET, P O BOX 224, MONROE, CT, 06468
CLMN    Number of Claims: 6
ECL     Exemplary Claim: 1
DRWN    2 Drawing Page(s)
LN.CNT 330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      The production of GMP in suitable quantities and of
        suitable quality for supply to the food, pharmaceutical, cosmetic, and
        other industries, is provided. The overall cheese making is
        made more efficient by recovering valuable kappa-casein
        glycomacropeptides from whey in a manner that permits most
        whey protein to be separated from the whey
        prior to concentrating and recovering glycomacropeptides from
        bovine whey. The invention provides procedures working on
        concentrated micro-filtered deproteinized whey
        protein (MFDPW) and obtaining a purified residue which
        can be dried.

=> s l9 and (SDS Gel Purity or SDS electrophores?)
L13           2 L9 AND (SDS GEL PURITY OR SDS ELECTROPHORES?)
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=> d l13 1-2 bib ab

L13 ANSWER 1 OF 2 USPATFULL on STN
AN 2002:323318 USPATFULL
TI Large scale **production** of low fat and SDS gel pure kappa-casein glycomacropeptides (**GMP**) from bovine **deproteinzed whey**
IN Davis, Martin E., Tonka Bay, MN, UNITED STATES
Ming, Fang, Madison Lake, MN, UNITED STATES
Su, Sharyn X., Plymouth, MN, UNITED STATES
Yang, Mengyan, Le Sueur, MN, UNITED STATES
Ichinomiya, Akimoto, Tokushima, JAPAN
PI US 2002183489 A1 20021205
AI US 2002-99612 A1 20020314 (10)
PRAI US 2001-275878P 20010314 (60)
DT Utility
FS APPLICATION
LREP WARE FRESSOLA VAN DER SLUYS &, ADOLPHSON, LLP, BRADFORD GREEN BUILDING 5, 755 MAIN STREET, P O BOX 224, MONROE, CT, 06468
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The **production** of **GMP** in suitable quantities and of suitable quality for supply to the food, pharmaceutical, cosmetic, and other industries, is provided. The overall cheese **making** is made more efficient by recovering valuable kappa-casein glycomacropeptides from **whey** in a manner that permits most **whey protein** to be separated from the **whey** prior to **concentrating** and recovering glycomacropeptides from bovine **whey.** The invention provides procedures working on **concentrated** micro-filtered **deproteinized whey protein** (MFDPW) and obtaining a **purified** residue which can be dried.

L13 ANSWER 2 OF 2 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2002-750533 [81] WPIDS
DNC C2002-212704
TI **Preparation** of glycomacropeptides from bovine whey involves contacting acidified, **concentrated deproteinized whey** with **ion exchange resin**, neutralizing the **resin** effluent, and subjecting to **microfiltration** and **diafiltration.**
DC B04 D13
IN DAVIS, M E; ICHINOMIYA, A; MING, F; SU, S X; YANG, M
PA (DAVI-I) DAVIS M E; (ICHI-I) ICHINOMIYA A; (MING-I) MING F; (SUSX-I) SU S X; (YANG-I) YANG M; (DAVI-N) DAVISCO FOODS INT INC
CYC 100
PI WO 2002074790 A1 20020926 (200281)* EN 17
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
US 2002183489 A1 20021205 (200301)
AU 2002336247 A1 20021003 (200432)
ADT WO 2002074790 A1 WO 2002-US7979 20020314; US 2002183489 A1 Provisional US 2001-275878P 20010314, US 2002-99612 20020314; AU 2002336247 A1 AU 2002-336247 20020314
FDT AU 2002336247 A1 Based on WO 2002074790
PRAI US 2001-275878P 20010314; US 2002-99612 20020314
AB WO 200274790 A UPAB: 20021216

NOVELTY - Glycomacropeptides are **prepared** from bovine **whey** by **removing fat, whey protein** and **aggregated proteins** from bovine **whey** to **produce** a **deproteinized whey** (**DPW**). The **DPW** is then **concentrated**, acidified, and contacted with an **ion exchange resin.** The resulting **resin** effluent is neutralized, subjected to **microfiltration** and then to **diafiltration**, **concentrated**, and then dried.

DETAILED DESCRIPTION - **Preparation** of glycomacropeptides (**GMP**) from bovine **whey** involves processing bovine **whey** to **remove fat, whey protein** and **aggregated proteins** to **produce DPW.** The **DPW** is then **concentrated**, acidified, and then contacted with an **ion exchange resin** to **remove** non-**GMP peptides** and **proteins** to obtain a **resin** effluent. The **resin** effluent is neutralized and then subjected to **microfiltration** to **remove aggregated protein** and fat. The **resin** effluent is further subjected to **diafiltration** to **remove lactose**, small **peptides** and **minerals** to provide a **purified resin** effluent which is then **concentrated** and dried.

USE - The invention is used for **preparing** glycomacropeptides, particularly kappa-casein **GMP**, from bovine **whey.** The **GMP** obtained can be utilized as an ingredient for e.g., foods, pharmaceuticals, and cosmetics.

ADVANTAGE - The inventive method is enable **production** of high quality **GMP** in large quantity.

Dwg.2/3

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=> Dup rem l9
PROCESSING COMPLETED FOR L9
L14          18 DUP REM L9 (0 DUPLICATES REMOVED)

=> d l14 1-18 bib ab

L14  ANSWER 1 OF 18  USPATFULL on STN
AN      2004:69633  USPATFULL
TI      Bone health compositions derived from milk
IN      Reid, Ian Reginald, Mount Albert, NEW ZEALAND
        Cornish, Jillian, Newmarket, NEW ZEALAND
        Haggarty, Neill Ward, Palmerston North, NEW ZEALAND
        Palmano, Kay Patricia, Palmerston North, NEW ZEALAND
PI      US 2004052860      A1   20040318
AI      US 2003-398628     A1   20031010 (10)
        WO 2001-NZ200           20010927
PRAI    NZ 2000-507335      20001005
DT      Utility
FS      APPLICATION
LREP    KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR,
        IRVINE, CA, 92614
CLMN    Number of Claims: 41
ECL     Exemplary Claim: 1
DRWN    4 Drawing Page(s)
LN.CNT 854
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      The invention relates to bone health compositions comprising an acidic
        protein fraction of milk, to a method of producing
        said bone health composition, to methods of treatment comprising said
        bone health compositions and to medicinal uses of said bone health
        compositions. One broad aspect of the invention provides a bone health
        composition comprising an acidic protein fraction derived from
        milk, from a component of milk, from whey, from hydrolysates
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thereof, or from a combination thereof, or from a combination thereof wherein the composition does not comprise caseinoglycomacropeptide (CGMP). Another broad aspect provides a method of manufacturing the composition of the invention using anion exchange **chromatography**
.

L14 ANSWER 2 OF 18 USPATFULL on STN
AN 2004:63429 USPATFULL
TI Method of **preparing** a milk polar lipid and a sphingolipid enriched **concentrate**
IN Bloomer, Scott, Bloomington, MN, UNITED STATES
Brody, Ernest P., Minneapolis, MN, UNITED STATES
PI US 2004047947 A1 20040311
AI US 2003-372048 A1 20030221 (10)
PRAI US 2002-358736P 20020221 (60)
DT Utility
FS APPLICATION
LREP KINNEY & LANGE, P.A., THE KINNEY & LANGE BUILDING, 312 SOUTH THIRD STREET, MINNEAPOLIS, MN, 55415-1002
CLMN Number of Claims: 58
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 5147
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of processing a composition that includes proteins and lipids, the method including transforming at least some of the proteins and at least some of the lipids originally present in the composition into protein residuals and lipid residuals and **concentrating** sphingolipids in a fraction following the transformation.

L14 ANSWER 3 OF 18 USPATFULL on STN
AN 2004:12743 USPATFULL
TI Method of **preparing** a milk polar lipid enriched **concentrate** and a sphingolipid enriched **concentrate**
IN Brody, Ernest P., Minneapolis, MN, UNITED STATES
PI US 2004009261 A1 20040115
AI US 2003-373420 A1 20030221 (10)
PRAI US 2002-358736P 20020221 (60)
DT Utility
FS APPLICATION
LREP KINNEY & LANGE, P.A., THE KINNEY & LANGE BUILDING, 312 SOUTH THIRD STREET, MINNEAPOLIS, MN, 55415-1002
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 5056
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of processing a dairy composition that includes a plurality of proteins, the method entailing combining an enzymatic substance with the dairy composition to form a mixture that includes an enzyme of fungal origin, and enzymatically hydrolyzing proteins present in the mixture during an enzymatic hydrolysis period of at least about two hours to **produce** a **product**, the **product** having a degree of protein hydrolysis greater than 30 percent.

L14 ANSWER 4 OF 18 USPATFULL on STN
AN 2003:238708 USPATFULL
TI Method of processing a proteinaceous material to recover K-casein macropeptide and polymers of a-lactalbumin and B-lactoglobulin
IN Brody, Ernest P., Minneapolis, MN, UNITED STATES
PA Land O' Lakes, Inc., Arden Hills, MN, UNITED STATES, 55112 (U.S. corporation)
PI US 2003166866 A1 20030904
AI US 2002-58907 A1 20020128 (10)
DT Utility

FS APPLICATION
LREP KINNEY & LANGE, P.A., THE KINNEY & LANGE BUILDING, 312 SOUTH THIRD STREET, MINNEAPOLIS, MN, 55415-1002
CLMN Number of Claims: 60
ECL Exemplary Claim: 1
DRWN 23 Drawing Page(s)
LN.CNT 4272
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of processing a proteinaceous material that includes κ-casein macropeptide, the method entailing polymerizing protein present in the proteinaceous material to yield a proteinaceous intermediate, where the proteinaceous intermediate includes polymerized protein, and separating the proteinaceous intermediate to yield a first portion and a second portion, where the first portion includes a majority of the κ-casein macropeptide from the proteinaceous material and the second portion includes a majority of the polymerized protein from the proteinaceous intermediate.

L14 ANSWER 5 OF 18 USPATFULL on STN
AN 2003:181691 USPATFULL
TI Process for separation of **whey proteins** using a novel anion exchanger
IN Ayers, John Stephen, Palmerston North, NEW ZEALAND
Elgar, David Francis, Palmerston, NEW ZEALAND
Palmano, Kay Patricia, Palmerston North, NEW ZEALAND
Pritchard, Mark, Palmerston North, NEW ZEALAND
Bhaskar, Ganugapti Bijaya, Palmerston North, NEW ZEALAND
PI US 2003125525 A1 20030703
AI US 2002-149339 A1 20021122 (10)
WO 2000-NZ245 20001208
PRAI NZ 1999-501644 19991208
NZ 2000-505071 20000609
DT Utility
FS APPLICATION
LREP KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614
CLMN Number of Claims: 31
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1050
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides new processes useful for separating **whey proteins** from **whey protein** -containing solutions using a novel anion exchanger which comprises a water insoluble, hydrophilic, water swellable, hydroxy (C.sub.2-C.sub.4) alkylated and cross-linked regenerated cellulose, derivatised with quaternary amino (QA) groups, wherein the level of substitution of the QA groups is 1.4 milli-equivalents per **dry** gram of anion exchanger (meq/g) or greater.

L14 ANSWER 6 OF 18 USPATFULL on STN
AN 2003:85907 USPATFULL
TI Method and apparatus for separation of milk, colostrum, and whey
IN Kopf, Henry B., Cary, NC, UNITED STATES
Kopf, Henry, III, Cary, NC, UNITED STATES
PI US 2003059512 A1 20030327
AI US 2001-950096 A1 20010910 (9)
DT Utility
FS APPLICATION
LREP INTELLECTUAL PROPERTY / TECHNOLOGY LAW, PO BOX 14329, RESEARCH TRIANGLE PARK, NC, 27709
CLMN Number of Claims: 82
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 2063

AB Apparatus and method for separation of milk and milk **products**, e.g., involving sequential separation of milk, clostrum, and whey components by cross-flow filtration. The apparatus and method in a preferred aspect employ cross-flow filtration, **chromatography** and fermentation to separate and fully utilize the components of milk, clostrum, and whey to generate numerous individual components, minimize waste, lower adverse environmental issues and provide enhanced economic benefits to dairy **producers.** A wide variety of consumer and nutraceutical **products** can be **produced** from the fractions and/or sub-fractions of milk **products** obtained from such separation. The invention further contemplates a methodology for selecting optimum membrane, device, and operating conditions to achieve a desired separation.

L14 ANSWER 7 OF 18 USPATFULL on STN
AN 2003:65553 USPATFULL
TI Isolation of glycoproteins from bovine milk
IN Davis, Martin E., Tonka Bay, MN, UNITED STATES
Ming, Fang, Madison Lake, MN, UNITED STATES
Yang, Mengyan, Le Sueur, MN, UNITED STATES
Su, Sharyn X., Plymouth, MN, UNITED STATES
Ichinomiya, Akimoto, Tokushima, JAPAN
Melachouris, Nicholas, Laguna Nigel, CA, UNITED STATES
PI US 2003045677 A1 20030306
AI US 2002-116968 A1 20020405 (10)
PRAI US 2001-281816P 20010405 (60)
DT Utility
FS APPLICATION
LREP Schwegman, Lundberg, Woessner & Kluth, P. A., P. O. Box 2938, Minneapolis, MN, 55402
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 468
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process isolates and recovers glycoprotein fractions in **dry** or solution form. Glycoproteins are recovered from **deproteinized whey**, preferably micro-filtered to **remove** large molecules and **aggregates.** The resulting retentate is then diluted for further processing. The resulting liquid is heated to coagulate **whey protein** and then cooled sufficiently to **precipitate** coagulated **whey protein.** The **preparation** can then be completed by **centrifuging** the resulting cooled solution and separating resulting supernatant containing glycoproteins from fat and **precipitate.** The **product** glycoprotein **concentrate** can be dried, such as by freeze **drying**, or recovered and stored in liquid form. In a preferred aspect, saline is employed to dilute the microfiltered **concentrate** prior to heating to improve the recovery of a liquid glycoprotein fraction that can be sterilized, such as by autoclaving. In another aspect, glycoprotein free of a majority of glycomacropeptides (**GMP**) can be recovered by adjusting the solution to alkaline pH and subjecting to **ion exchange** extraction. Preferred liquid **products** are stable to autoclaving and free of separation after storage in a sealed container at 20° C. for a period of at least one month.

L14 ANSWER 8 OF 18 USPATFULL on STN
AN 2003:115900 USPATFULL
TI Process for isolating glycomacropeptide from dairy **products** with a phenylalanine impurity of 0.5% w/w
IN Ayers, John Stephen, Palmerston North, NEW ZEALAND
Coolbear, Kay Patricia, Palmerston North, NEW ZEALAND
Elgar, David Francis, Palmerston North, NEW ZEALAND
Pritchard, Mark, Fitzherbert West Palmerston North, NEW ZEALAND

PI US 6555659 B1 20030429
AI US 2000-625043 20000724 (9)
RLI Continuation of Ser. No. US 269918, now abandoned
PRAI NZ 1996-299483 19961001
DT Utility
FS GRANTED
EXNAM Primary Examiner: Low, Christopher S. F.; Assistant Examiner: Mohamed, Abdel A.
LREP Knobbe, Martens, Olson & Bear, LLP
CLMN Number of Claims: 43
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1130
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is related to a method for the **purification** of glycomacropeptide (**GMP**) with an amino acid composition containing no greater that 0.5% (w/w) phenylalanine, comprising the steps of contacting a **GMP**-containing feedstock with a first anion exchanger under conditions to adsorb the **GMP**, eluting the adsorbed **GMP** from the anion exchanger and removing impurities from the **GMP**-containing eluate by either: (i) contacting the **GMP**-containing eluate with a cation exchanger in conditions under which the impurities in the eluate are adsorbed onto the cation exchanger, or (ii) **precipitating** the impurities in **GMP**-containing eluate using conditions in which the **GMP** remains i solution, or (iii) contacting the **GMP**-containing eluate with a second anion exchanger in conditions under which the impurities in the eluate are adsorbed onto the anion exchanger, and recovering the **GMP** from whichever one or more of the steps (i), (ii) or (iii) was used.

L14 ANSWER 9 OF 18 USPATFULL on STN
AN 2002:323318 USPATFULL
TI Large scale **production** of low fat and SDS gel pure kappa-casein glycomacropeptides (**GMP**) from bovine **deproteinzed whey**
IN Davis, Martin E., Tonka Bay, MN, UNITED STATES
Ming, Fang, Madison Lake, MN, UNITED STATES
Su, Sharyn X., Plymouth, MN, UNITED STATES
Yang, Mengyan, Le Sueur, MN, UNITED STATES
Ichinomiya, Akimoto, Tokushima, JAPAN
PI US 2002183489 A1 20021205
AI US 2002-99612 A1 20020314 (10)
PRAI US 2001-275878P 20010314 (60)
DT Utility
FS APPLICATION
LREP WARE FRESSOLA VAN DER SLUYS &, ADOLPHSON, LLP, BRADFORD GREEN BUILDING 5, 755 MAIN STREET, P O BOX 224, MONROE, CT, 06468
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The **production** of **GMP** in suitable quantities and of suitable quality for supply to the food, pharmaceutical, cosmetic, and other industries, is provided. The overall cheese **making** is made more efficient by recovering valuable kappa-casein glycomacropeptides from **whey** in a manner that permits most **whey protein** to be separated from the **whey** prior to **concentrating** and recovering glycomacropeptides from bovine **whey.** The invention provides procedures working on **concentrated** micro-filtered **deproteinized whey protein** (MFDPW) and obtaining a **purified** residue which can be dried.

L14 ANSWER 10 OF 18 USPATFULL on STN
AN 2002:272874 USPATFULL
TI Methods for **producing** sialyloligosaccharides in a dairy source
IN Pelletier, Marc, Doylestown, PA, UNITED STATES
Barker, William A., West Chester, PA, UNITED STATES
Hakes, David J., Willow Grove, PA, UNITED STATES
Zopf, David A., Strafford, PA, UNITED STATES
PA Neose Technologies, Inc. (U.S. corporation)
PI US 2002150995 A1 20021017
US 6706497 B2 20040316
AI US 2001-955909 A1 20010918 (9)
RLI Continuation of Ser. No. US 1997-911393, filed on 14 Aug 1997, GRANTED, Pat. No. US 6323008
DT Utility
FS APPLICATION
LREP MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
CLMN Number of Claims: 46
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 2720
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides methods for **producing** sialyloligosaccharides in situ in dairy sources and cheese processing waste streams, prior to, during, or after processing of the dairy source during the cheese manufacturing process. The methods of the present invention use the catalytic activity of α(2-3) trans-sialidases to exploit the high **concentrations** of lactose and α(2-3) sialosides which naturally occur in dairy sources and cheese processing waste streams to drive the enzymatic synthesis of α(2-3) sialyllactose. α(2-3) sialyloligosaccharides **produced** according to these methods are additionally encompassed by the present invention. The invention also provides for recovery of the sialyloligosaccharides **produced** by these methods. The invention further provides a method for **producing** α(2-3) sialyllactose. The invention additionally provides a method of enriching for α(2-3) sialyllactose in milk using transgenic mammals that express an α(2-3) trans-sialidase transgene. The invention also provides for recovery of the sialyllactose contained in the milk **produced** by this transgenic mammal either before or after processing of the milk. Transgenic mammals containing an α(2-3) trans-sialidase encoding sequence operably linked to a regulatory sequence of a gene expressed in mammary tissue are also provided by the invention.

L14 ANSWER 11 OF 18 USPATFULL on STN
AN 2002:122455 USPATFULL
TI **Peptide** mixture and **products** thereof
IN Shimamura, Seiichi, Kanagawa, JAPAN
Tamura, Yoshitaka, Kanagawa, JAPAN
Miyakawa, Hiroshi, Kanagawa, JAPAN
Saito, Hitoshi, Kanagawa, JAPAN
Kawaguchi, Yasushi, Kanagawa, JAPAN
Isomura, Naoko, Kanagawa, JAPAN
Akazome, Yoko, Kanagawa, JAPAN
Ochi, Hiroshi, Kanagawa, JAPAN
Kawamoto, Mihoko, Kanagawa, JAPAN
PA Morinaga Milk Industry Co., Ltd., Tokyo, JAPAN (non-U.S. corporation)
PI US 6395508 B1 20020528
AI US 1999-316957 19990524 (9)
RLI Continuation of Ser. No. US 817095, now patented, Pat. No. US 5952193
PRAI JP 1994-274303 19941014
JP 1994-274304 19941014
JP 1994-305635 19941115
DT Utility

FS GRANTED
EXNAM Primary Examiner: Borin, Michael
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1998
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for **producing** a **peptide** mixture from a starting protein by (1) adding at least one protease to an aqueous solution of at least one starting protein to hydrolyse the starting protein, (2) measuring the amount of a free amino acid selected from the group consisting of lysine, phenylalanine, leucine and arginine **produced** during the hydrolysis of the starting protein, (3) calculating the amount of the free amino acid with respect to the total amount of amino acid contained in the starting protein, and (4) terminating the hydrolysis when the calculated amount of the free amino acid with respect to the total amount of the amino acid contained in the starting protein falls within a predetermined range. The inventive method provides a starting protein hydrolysate of uniform and consistent quality.

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

STN INTERNATIONAL LOGOFF AT 14:16:30 ON 31 MAY 2004